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RECORDS AND DESCRIPTIONS OF AFRICAN SYRPHIDAE.—I (DIPTERA)

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In 1915, Bezzi reviewed the Ethiopian Syrphidae contained in the collections of the British Museum but this work merely listed a large number of the species. Since that time there have been numerous descriptions of species new to the region and it is now a rather tedious task to identify material in the family. With a view to bringing keys to the species belonging to many of the genera up to date a series of papers dealing with the family is proposed. New records and descriptions of new forms are included along with the keys.

CERIOIDES RONDANI

Following is a key to the African species. Most of the forms are known from very few specimens.

TABLE OF SPECIES

1.—Wings with three brown spots along the costa; length about 8 mm..... ..... *divisa* Walker.
Wings differently colored.....2.
2.—Antennae not situated on a pedicel.....3.
Antennae situated on a pedicel.....4.
3.—Occiput blackish except a small spot on either side of the vertex..... ..... *bezzii* Hervé-Bazin.
Occiput yellow on the upper part behind the eyes..... *marginalis* Bezzi.
4.—Scutellum yellow, the base sometimes blackish.....5.
Scutellum black, often with yellow border or discal markings.....12.
5.—Pleura without yellow markings.....6.
Pleura with yellow markings.....7.
6.—Face wholly yellow, the cheeks somewhat reddish..... *rufifrons* Curran.
Face with a pair of gently curved median blackish vittae..... *afra* Wiedemann.
7.—Face with one or more black or brownish vittae.....8.
Face wholly yellow..... *ugandana* Kertesz.
8.—Pleura with pale yellow stripe.....9.
Pleura with reddish stripe..... *neavei* Bezzi.
9.—Face with a dark median vitta and a stripe on either side below..... ..... *pulchra* Hervé-Bazin.
Face with one or two vittae.....10.

10.—Face with a single median vitta.....11.
Face with two brown vittae which meet above and below..*gambiana* Saunders.
11.—Abdomen very strongly pedicellate.....*hopei* Saunders.
Abdomen not pedicellate.....*vespiformis* Latreille.
12.—Both the third and fourth abdominal segments with yellow posterior borders.....13.
Usually both the third and fourth segments not yellow posteriorly, the third sometimes with reddish apex.....14.
13.—Scutellum with a yellow fascia across the disc; abdomen scarcely constricted.....*aurata* Curran.
Scutellum with yellowish apical border; abdomen moderately constricted basally.....*maculipennis* Hervé-Bazin.
14.—Face black or brown, with slender median vitta or spots, narrow stripes converging toward the oral margin, slender stripes separating the face and cheeks and spots or stripes opposite the antennae.....15.
Face much more extensively yellowish.....17.
15.—Scutellum with a yellow border.....16.
Scutellum without yellow border.....*ammophilina* Speiser.
16.—All antennal segments of about equal length; posterior femora strongly narrowed on more than apical half.....*bequaerti*, new species.
Third antennal segment much shorter than the second; posterior femora of almost uniform thickness.....*varipes* Curran.
17.—Legs black, the femora somewhat reddish basally.....*speiseri* Hervé-Bazin.
Legs mostly reddish.....18.
18.—The brown costal border does not extend behind the third vein; face with median geminate brownish vitta widened in the middle.*congoensis* Bezzi.
The brown costal border extends well behind the third vein; face with a strong ∧-shaped black stripe.....*brunneipennis* Loew.

Cerioides bezzii Hervé-Bazin

Hervé-Bazin, 1913, Rev. Zool. Afr., III, p. 87.

Male and female, Stanleyville, Congo, March, 1915.

Cerioides marginalis Bezzi

Bezzi, 1915, 'Syrph. Ethiop. Reg.,' p. 142.

Male, Stanleyville, Congo, March, 1915.

This species was originally described as a variety of *bezzii* but the two forms are very distinct. The genitalia of the males are markedly different and the third and fourth sternites are longitudinally carinate in the middle in *marginalis*, quite plain in *bezzii;* the tarsi are wholly dark in *marginalis*, etc.

Cerioides bequaerti, new species

A large, blackish species, the wings pale brown with the costal border broadly dark brown. Length, about 22 mm.

Female.—Head brownish black, the cheeks and lower part of face castaneous.

Front and upper occiput with thin cinereous pollen, the frontal depression deep and arcuate. Lower part of occiput and middle of face thickly cinereous pollinose. Face rather strongly produced downward and with a strong tubercle below, separated from the cheeks by a narrow yellow line; a second broader yellow stripe extends from the upper facial orbits to the anterior oral margin on each side and there is a short reddish stripe extending over the tubercle. Antennal pedicel as long as the head, broadly reddish basally; antennae black, the third segment brown with yellow style.

Thorax black, rather thinly cinereous yellow pollinose, the dorsum covered with tiny tubercles, and with only indistinct hair. Posterior calli and propleura reddish; scutellum with the apical border yellow. Poststernum chitinized.

Legs black, the bases of the anterior four femora, their trochanters, knees and bases of the anterior four tarsi reddish; posterior femora swollen on basal third, slender on apical two-thirds.

Wings pale brownish, dark brown on the anterior third and in the posterior half of the second basal cell. Squamae dark brown; halteres reddish yellow.

Abdomen strongly pedicellate, the second segment long and narrow, gently widening from the base and strongly widening on the apical fifth; third segment widening from base to apex, the abdomen thence narrowing to the tip. First segment with transverse, basal yellow spots laterally; second with the base reddish, the third with the apex broadly reddish. Hair very short and black, appressed, reddish on the fourth segment; pollen thin, cinereous yellow; second segment with preapical band of opaque black.

HOLOTYPE.—Female, Stanleyville, Congo, March, 1915 (J. Bequaert).

Cerioides vespiformis Latreille

Ceria vespiformis LATREILLE, 1809, 'Gen. crust. ins.,' IV, p. 328.

Male and three females, Amizoniz, Morocco (T. D. A. Cockerell).

These specimens are all somewhat differently marked from European examples in the collection.

Cerioides aurata Curran

CURRAN, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 83.

Male, Jambuva, Congo, November 29, 1913 (J. Bequaert).

MICRODON MEIGEN

In his treatment of the Ethiopian Syrphidae Bezzi divided the genus *Microdon* into six groups but I find it impossible to follow him. The genus is a very difficult one and while I have prepared a key to the described species I realize that it may not prove entirely satisfactory because it is based very largely upon descriptions.

The group designated as "*punctulatus*" by Bezzi is based upon male characters only and is quite untenable while groups II and III are very feebly separated. Since the same characters have not been mentioned by various authors in describing species it is difficult to place many of

those described in their exact places, hence the use of groups of any sort has been discarded. Unfortunately I am unable to place *punctulatus* Wiedemann in the key as the description does not give the relative lengths of the antennal segments. It seems likely that one of the species included will fall to *punctulatus* but an examination of the type will be necessary in order to establish its identity.

TABLE OF SPECIES

1.—Third abdominal segment wider than the second; slender species.....2.
Third segment not wider than the second.....3.
2.—Mesonotum golden yellow in front of the scutellum...*acantholepidis* Speiser.
Mesonotum with rather silvery pubescence.....*illucens* Bezzi.
3.—Scutellum without spines or deep apical emargination.....4.
Scutellum either with spines or deeply notched apically.....17.
4.—Abdomen reddish or yellowish.....5.
Abdomen partly or wholly black or brownish.....9.
5.—Legs wholly black.....6.
Legs mostly reddish or yellowish.....7.
6.—Abdomen reddish.....*erythros* Bezzi.
Abdomen yellow.....*luteiventris* Bezzi.
7.—Posterior legs wholly reddish or yellowish.....8.
Posterior legs partly black.....*aethiopicus* Rondani.
8.—Arista reddish; wings uniformly blackish.....*inermis* Loew.
Arista black; wings brownish along the veins.....*pallidus* Bezzi.
9.—Third antennal segment about four times as long as the basal two combined.....*villosus* Bezzi.
Third segment not twice as long as the first two.....10.
10.—Femora and tibiae wholly reddish; head bright reddish..*erythrocephalus* Bezzi.
Femora at least partly black.....11.
11.—Very large blackish species, the wings broadly blackish in front; femora partly reddish; length at least 20 mm.....*mydas* Bezzi.
Smaller, length not greater than 15 mm.....12.
12.—Third antennal segment black or brown.....13.
Third antennal segment reddish.....*rugosus* Bezzi.
13.—First antennal segment as long as the third or longer.....16.
First antennal segment shorter than the third.....14.
14.—Mesonotum bordered with brassy yellow, or yellowish-gray, appressed hair..15.
Mesonotum with black and grayish-white hair.....[1] *captum* Speiser.
15.—Anterior four legs mostly reddish, the anterior tarsi broadened; wings hyaline with light gray apex.....*cremastogastri* Speiser.
Legs wholly black or reddish brown, the anterior tarsi not broadened; wings pale brownish, more grayish posteriorly.....*appendiculata* Curran.
16.—Apical tarsal segments broader than long.....*apis* Speiser.
Apical tarsal segment decidedly longer than wide....*inappendiculata* Curran.
17.—Scutellum yellowish.....18.

[1] *M. punctulatus* Wiedemann is omitted. It appears to come here and may be the same.

Scutellum brown, black, or metallic ..... 19.
18.—Legs brown or black, the tarsi reddish ..... *bequaerti* Curran.
Legs reddish yellow, the posterior pair and bases of the anterior four femora brown or blackish ..... *tarsalis* Hervé-Bazin.
19.—Femora blackish or metallic ..... 21.
Femora reddish, more or less darkened basally ..... 20.
20.—Face broad, not constricted below ..... *obesus* Hervé-Bazin.
Face constricted below ..... *testaceus* Walker.
21.—Frontal pile mostly black ..... 22.
Frontal pile wholly pale ..... *hova* Hervé-Bazin.
22.—Tibiae pale pilose on the basal half ..... 23.
Tibiae pale pilose only at the base ..... *sudanus* Curran.
23.—Thorax with whitish or yellowish hair ..... 24.
Thorax black-haired in the male; mostly black-haired in the female ..... *tenuifrons* Curran.
24.—Hair of the mesonotum rich brassy yellow ..... 25.
Hair of the mesonotum whitish ..... *brevicornis* Loew.
25.—Scutellum with strong spines ..... *wainwrighti*, new species.
Scutellum emarginate and biangulate apically but without spines ..... *liberiensis* Curran.

Microdon erythros Bezzi

Bezzi, 1908, Ann. Soc. Ent. Belg., LII, p. 383.

Two males, Eden, Cameroon (J. A. Reis).,

Microdon inermis Loew

Loew, 1857, Ofvers. Kongl. Vet. Akad. Förhandl., p. 376.

Male and female (in cop.), Gbanga, Liberia, 1926 (J. Bequaert).

Microdon appendiculata Curran

Curran, 1929, Amer. Mus. Novit., No. 340, p. 6.

The known specimens are from Kakatown and Gbanga, Liberia, collected by Dr. Bequaert in 1926.

Microdon inappendiculata Curran

Curran, 1929, Amer. Mus. Novit., No. 340, p. 7.

Known only from Kakatown, Liberia, August, 1926.

Microdon bequaerti Curran

Curran, 1929, Amer. Mus. Novit., No. 340, p. 3.

Described from Gbanga, Liberia, 1926 (Bequaert).

This species and *tarsalis* Hervé-Bazin are evidently closely related but they may be readily separated by the color of the legs.

Microdon tenuifrons Curran

CURRAN, 1929, Amer. Mus. Novit., No. 340, p. 5.

The male was described from Camp No. 3, Du River, Liberia. In the same collection was a female from Lenga Town, Liberia, August 15, 1926, which I did not associate with the male but which may prove to be the same species. The antennae are a little longer, there is considerable brownish-yellow pile on the thorax, and the abdomen is wholly bluish. Inasmuch as *brevicornis* Loew has white-haired thorax I am inclined to think that my original impression that this specimen should be referred to *brevicornis* was wrong. The specimens contained in the last four couplets of the key are all closely related and distinctive characters exhibited by the males are less marked in the opposite sex.

Microdon liberiensis Curran

CURRAN, 1929, Amer. Mus. Novit., No. 340, p. 4.

I have seen only the type series, comprising two males and one female from Liberia and a male from Cameroon.

Microdon brevicornis Loew

LOEW, 1857, Ofversl. Kongl. Vet. Akad. Förhandl., XIV, p. 376.

Female, Salisbury, S. Rhodesia, February, 1929 (A. Cuthbertson).

Microdon illucens Bezzi

BEZZI, 1915, 'Syrph. Ethiop. Reg.,' p. 121.

Twelve males and two females, Algoa Bay, Cape Province, February 15 to March 23, 1896 (Dr. Brauns); one male, Kowie, November 30, 1896 (Dr. Penther).

Microdon wainwrighti, new species

A short, robust species with spined scutellum and short antennae. Length, 8 mm.

MALE.—Front very narrow at the depression, gradually widening to the antennae and to the vertex, very much wider at the vertex than at the antennae; ocellar triangle small, situated near the middle of the upper section of the front. Occiput black, with cincereous pollen. Cheeks linear. Face narrow and slightly narrowing below, moderately convex. Face and front metallic dark green. Pile yellow, paler on the face, a patch of black hair above the antennae and some black hairs about the ocellar triangle. Antennae black, shorter than the head, the first and third segments of about equal length; arista reddish brown, slightly longer than the third segment.

Mesonotum and scutellum metallic dark green, posterior calli and pleura reddish or reddish yellow, the sternum shining brown. Pile rich reddish yellow dorsally, pale yellowish on the pleura. The brown scutellar spines are moderately separated by a fairly deep concavity and bear pile on the basal half or more.

Coxae, trochanters, and femora brown, the trochanters more or less broadly reddish or reddish yellow apically; posterior femora basally and the apices of all the femora, yellowish, each reddish on the apical half of the ventral surface. Tibiae yellow with the apical third brown. Tarsi brown with the last segment reddish on the apical half. Pile yellowish, very pale on the tibiae, black on the upper surface of the apical tarsal segments.

Wings cinereous hyaline, with brown veins; apical crossvein gently recurrent and only slightly curved, the apical cell angulate behind. Squamae and halteres very pale yellow.

Abdomen clay yellowish, a broad median vitta on the third and fourth segments and about the basal half of these segments brown and with appressed black pile, the pile elsewhere pale brassy yellow, becoming almost white apically. Under surface wholly reddish yellow; genitalia rather small, rusty reddish. The abdomen is decidedly wider than the thorax and only about one-fourth longer than wide.

HOLOTYPE.—Male, Lourenço Marques, April–July, 1914 (H. A. Junod), received from Mr. Colbran J. Wainwright.

CITABAENA WALKER

Many of the species belonging to this genus are very similar in general appearance and, while the species may be divided into fairly satisfactory groups, the characters all intergrade. There is a quite evident sexual dimorphism in some of the species so that it is not always easy, without an abundance of material, to associate the two sexes. The following key includes all the African species known to me, but inasmuch as it is based to a large extent upon descriptions only it is not possible to use all available characters.

TABLE OF SPECIES

1.—Wings with strongly brown bordered crossveins..... *maculipennis* Bezzi.
Wings not strikingly bicolored..... 2.
2.—Posterior femora without sub-basal spur below..... 3.
Posterior femora with strong, sub-basal spur below..... *armipes* Bezzi.
3.—Eyes of males broadly separated..... 4.
Eyes of males touching or almost so..... 8.
4.—Abdomen of male with lunules..... 5.
Abdomen of male with large lateral silvery spots..... *argenteus* Walker.
5.—Abdominal lunules broadly separated in the middle..... 6.
Abdominal lunules approximate in the middle..... 7.
6.—Scutellum black..... *argyropsis* Bezzi.
Scutellum reddish..... *rubiginosus* Hervé-Bazin.
7.—Stigma brown; lunules whitish..... *lugens* Wiedemann.
Stigma colorless; lunules yellow..... *jacobi* Hervé-Bazin.
8.—Eyes with conspicuous hair..... 9.
Eyes bare or practically so..... 25.
9.—Abdomen reddish basally, at least on the sides..... 10.
Abdomen wholly black except the tip or with yellow markings..... 11.

10.—Femora black.....*lunatus* Fabricius.
Anterior four femora reddish.....*axinecerus* Speiser.
11.—Dorsum of second and third segment entirely silvery, concealing the ground color.....*paulae* Hervé-Bazin.
Abdomen not silvery as above.....12.
12.—Abdomen with yellow lunulate markings or spots.....13.
Ground color not yellow beneath the lunules, sometimes obscurely reddish...14.
13.—Female front without black pile above antennae (♀ only).....
.....*varipennis*, new species.
Female front with black pile immediately above antennae.....36.
14.—Third antennal segment partly reddish.....15.
Third antennal segment wholly black.....19.
15.—Anterior four femora reddish.....*axinecerus* Speiser.
Femora broadly black basally.....16.
16.—Anterior four tibiae wholly red; stigma brown.....*erythrocerus* Loew.
Anterior four tibiae blackish on apical half.....17.
17.—Scutellum wholly black.....18.
Scutellum with yellow apex.....*dolichocerus* Speiser.
18.—Scutellar pile erect.....36.
Scutellar pile extremely short; front of female narrow, the ocellar triangle elongate.....*barbarus* Coquebert.
19.—Posterior tarsi with only appressed hair.....22.
Posterior tarsi with erect hair above, at least on the basal segment.....20.
20.—Only the first segment of the posterior tarsi with erect hair.....21.
All the segments of the posterior tarsi with erect hair.....*obliquus* Fabricius.
21.—Fourth abdominal segment wholly pollinose on posterior half..*vestitus* Bezzi.
Fourth abdominal segment broadly shining laterally on the posterior half.....
.....*efflatouni*, new species.
22.—Posterior tarsi wholly black-haired.....*latitarsis* Macquart.
Posterior tarsi at least partly whitish or yellowish-haired above or on the sides.....23.
23.—Scutellum wholly black.....24.
Scutellum with yellowish or grayish apex.....*scaber* Bezzi.
24.—Scutellar teeth very conspicuous; sides of mesonotum not pollinose on the whole length.....*integer* Bezzi.
Scutellar teeth inconspicuous.....35.
25.—Abdomen with yellowish spots.....26.
Abdomen without yellowish lunules.....27.
26.—Abdomen with one pair of yellow spots or in part red.....33.
Abdomen with two pairs of yellow spots.....*quadrimaculatus* Macquart.
27.—Third antennal segment wholly black.....29.
Third antennal segment partly or wholly reddish.....28.
28.—Femora reddish.....*rufipes* Hervé-Bazin.
Femora black.....34.
29.—Abdominal lunules strongly developed.....30.
Abdominal lunules very weak.....*unicolor* Loew.
30.—Legs partly reddish.....31.
Legs wholly black.....*triangularis* Hervé-Bazin.

31.—Scutellum with yellowish apex.....32.
Scutellum wholly black.....*villeneuvei* Hervé-Bazin.
32.—Fourth abdominal segment almost wholly pollinose behind the lunules.....
.....*efflatouni*, new species.
Fourth segment mostly shining except for the lunules.....*feae* Bezzi.
33.—Male genitalia very small.....*bequaerti* Hervé-Bazin.
Male genitalia moderately large; yellow spots on second abdominal segment large.....38.
34.—Scutellum with yellow apex.....*dolichocerus* Speiser.
Scutellum wholly black.....*amoenus* Loew.
35.—Sides of mesonotum broadly pollinose on the whole length (Canary Islands)....
.....*purpureus* Macquart.
Sides of mesonotum very narrowly pollinose.....*wainwrighti*, new species.
36.—Wings cinereous hyaline.....37.
Wings brown, the base broadly pale.....*varipennis*, new species.
37.—Front of female wide, narrowing anteriorly.....*capensis*, new species.
Front of female narrow, gently widening anteriorly.....*serratus* Bezzi.
.....*paulae* Hervé-Bazin.
38.—Abdomen in part red—See couplet 10.
Abdomen with only the pale spots.....*pipizoides* Speiser.

Citabaena wainwrighti, new species

A moderately large black species, the wings pale brownish, the gray lunules weak and narrowly separated; antennae wholly black; eyes strongly pilose. Length, 9 mm.

FEMALE.—Pile whitish, rather long and abundant, a very broad band of black pile in front of the vertex and an incomplete band immediately above the antennae. Front moderately wide, widening anteriorly, shining except for a narrow strip of cinereous pollen on the lower half along the orbits. Ocellar triangle almost twice as long as wide, the upper ocelli situated near the upper angles of the eyes. Occiput cinereous pollinose except above, the face with similar pollen. Antennae wholly black, large, the third segment orbicular, slightly longer than wide, in outline slightly flattened beyond the arista.

Thorax slightly shining blue-black, the mesonotum with a pair of narrow, cinereous pollinose vittae extending from the front margin to the posterior fifth. Pile moderately long, pale cinereous yellow. Scutellum strongly margined and weakly dentate.

Legs black; posterior femora moderately swollen; knees reddish, tarsi brown. Pile white, the posterior tibiae with a large patch of brown pile near the middle on the dorsal surface.

Wings pale brown, somewhat paler basally. Squamae white. Halteres yellow.

Abdomen slightly shining black, densely, finely punctate, with three pairs of cinereous pollinose spots forming oblique, arcuate bands that end well inside the lateral margins, the spots only narrowly separated from each other and situated in extremely weak depressions. The pile is whitish, black in front of and behind the pollinose spots except on the second segment where it is wholly pale anteriorly.

HOLOTYPE.—Female, Johannesburg, S. Africa, August, 1894 (J. P. Cregoe), received from Mr. Colbran J. Wainwright.

Citabaena varipennis, new species

Readily distinguished from known African species by having the wings brown on the apical two-thirds. Length, 5 to 6 mm.

MALE.—Eyes with short black hairs, contiguous for a short distance. Frontal triangle pale yellowish pollinose and with pale pile. Vertical triangle long, with brownish-yellow pollen in front of the ocelli, which are situated near its middle, their triangle slightly longer than wide. Pile black in front, white behind the ocelli and on the occiput and face. Occiput with white pollen. Cheeks linear, bare on more than the anterior half. Face white pollinose, bluish in ground color. Antennae orange, the basal segments and arista brown, the third segment broadly brownish above on the outer surface, convex above, almost straight below, the end sharply rounded.

Thorax shining black, the pleura greenish black and thinly cinereous pollinose; mesonotum with a pair of gray pollinose vittae extending from the anterior border to behind the middle. Pile yellow, paler on the pleura; a number of coarse black hairs above the roots of the wings. Scutellum strongly margined and bearing four pairs of small teeth, the preapical depression with very large punctures.

Legs black; tips of the anterior four femora, basal third or less of their tibiae and their tips, and the anterior four tarsi yellow; tips of the posterior femora and the base of their tibiae reddish. Posterior tarsi brown and slender; posterior femora not enlarged and without unusual spines. Pile cinereous white.

Wings brown, hyaline on about the basal third. Squamae white. Halteres yellow.

Abdomen black, slightly bronzed, with three pairs of rather small, oblique, gray pollinose spots, the spots on the second segment largest, almost transverse in front and strongly tapering to the posterior outer ends. Pile black, short and appressed, white on the pollinose spots, first segment, and entire lateral margins. Genitalia with black hair. Fifth sternite with long, posteriorly directed brown bristles on the apex except at the sides, the sternites with pale pile.

TYPES.—Holotype, male, and paratype, male, Lourenço Marques, April–July, 1914 (H. A. Junod), received from Mr. Colbran J. Wainwright. Type returned to Mr. Wainwright; paratype in The American Museum of Natural History.

Citabaena axinecerus Speiser

Eumerus axinecerus SPEISER, 1910, 'Kil.-Meru Exp.,' X, p. 129.

Male, Umtali District, Southern Rhodesia, November 2, 1931 (P. A. Sheppard); female, Bulawayo, Southern Rhodesia, July 27, 1923.

The hairs on the eyes are so minute in this species that they are usually visible only under high power. Inasmuch as they may appear quite bare the species has been included in both sections of the key. The male may be readily distinguished from *lunatus* Fabricius by having the vertical triangle almost wholly pollinose. In *lunatus* it is shining except in front.

Citabaena lunatus Fabricius

Syrphus lunatus FABRICIUS, 1794, 'Ent. Syst.,' IV, p. 296.

Male, Cape Town, S. Africa, April 4, 1920 (M. Bequaert).

This species has not been previously known from the Ethiopian region.

Citabaena serratus Bezzi

Bezzi, 1915, 'Syrph. Ethiop. Reg.,' p. 111.

Male, Lukolela, Congo, January 7, 1931.

Citabaena capensis, new species

Greenish black, with thinly pilose eyes and large, brownish-red antennae. Length, 7.5 mm.

Female.—Head greenish black, the face, cheeks, and occiput cinereous-white pollinose, the frontal orbits pollinose on the lower half; pile cinereous white, paler on face and cheeks, a band of black pile across the ocelli. Front narrowest at the anterior third, slightly widening anteriorly and strongly widening to the vertex; ocellar triangle slightly wider than long, the posterior ocelli situated conspicuously in front of the upper angles of the eyes. Antennae brownish red, the upper border of the third segment darker, the arista brown; third segment suborbicular, gently narrowed apically.

Thorax shining blackish green, with pale yellow pile, the pile on the pleura becoming whitish below. Mesonotum with a pair of weak, cinereous pollinose vittae extending to the posterior fourth. Scutellum margined, finely serrate apically.

Legs black, the trochanters, tips of the femora and tibiae, basal half of the tibiae, and the tarsi, reddish, the posterior tarsi brownish red. Posterior femora rather strongly swollen. Pile pale yellowish on the femora, more whitish on the tibiae and tarsi.

Wings cinereous hyaline, the stigma yellow. Squamae white, the halteres reddish yellow.

Abdomen shining black, with three pairs of gray-pollinose lunules, the sides more or less bronzed. Pollinose spots on second segment oblique, straight, of almost equal width throughout, lunules on the third segment broadly separated from each other and from the lateral margins, their inner ends broadest and rounded, the outer ends curved sharply forward and obliquely truncate; lunules on the fourth segment largest, shaped like those on the third, but wider inwardly, and narrower outwardly where they are carried forward to a greater degree. Pile brassy yellow on the base, lateral margins, and on the lunules; produced inward in the form of a short, broad fascia on the apex of the second segment, and in the form of a small triangle on the base of the fourth, the apex of the fourth wholly pale pilose behind the posterior portions of the lunules; dorsum with shorter, appressed black pile. Fifth segment and venter wholly pale haired.

Holotype. Female, Cape Town, South Africa.

This species probably belongs to the group in which the eyes of the male are separated. It bears a superficial resemblance to *obliquus* Fabricius but is at once distinguished by the wide front.

Citabaena sudanus, new species

Resembling *obliquus* Fabricius but with shorter pilose eyes, much more extensively pollinose thorax, wholly pale pilose head, etc. Black, with cinereous-white pollen. Length, 7.5 mm.

MALE.—Head thickly white pollinose, the vertical triangle with thinner, yellowish tinged pollen and rather long pale yellowish pile, the pile elsewhere white. Eyes touching for a short distance, the vertical triangle rather suddenly narrowed in front, the ocellar triangle situated at the middle and more than twice as long as wide. Eyes sparsely short pilose. Antennae reddish brown, the arista black apically; third segment decidedly longer than wide, gently widening from the base to the apical third, thence oblique to the lower apex which is sharply rounded.

Thorax cinereous pollinose, the disc of the mesonotum behind the suture shining black, a pair of narrow, shining vittae extending forward almost to the anterior margin of the thorax; an oval shining spot toward each side in front of the suture. Pleura shining in front and behind. Pile yellow dorsally, white on the pleura. Scutellum with whitish apical border, narrowly margined.

Legs reddish brown, the tips of the femora, basal fourth of the posterior tibiae, and the anterior tibiae and tarsi yellow. Posterior femora rather strongly swollen; posterior tibiae somewhat enlarged; basal segment of the posterior tarsi laterally compressed and heightened and with moderately long black hair above, the other segments with short black hair. Pile whitish.

Wings cinereous hyaline, the stigma yellowish. Squamae white. Halteres yellow.

Abdomen black, the apices of the segments more or less broadly brownish. Pollinose lunules on second segment strongly oblique, reaching the posterior corners broadly, narrowly separated in the middle, and produced forward laterally as large, obtuse triangles to the anterior sixth of the segment. The lunules on the third segment are arcuate, slightly broader and connected with a rectangle of gray pollen on the posterior corners, the lateral margin narrowly pollinose, produced in front as a small, obtuse triangle. Lunules on the fourth segment largest, broader, connected posteriorly with the broadly pollinose posterior border, the pollen on the sides of the segment broadly expanded on the anterior half. Pile white, shorter and black on the bare portions of the second and third segments and on the anterior third of the fourth segment. Genitalia shining reddish brown, and black pilose. Fifth sternite brownish red, the pile pale on the venter.

HOLOTYPE.—Male, Khartoum, Sudan, June 14, 1916.

Citabaena efflatouni, new species

Eumerus vestitus EFFLATOUN, 1922, Mem. Soc. Ent. Egypt, II, p. 113.

Related to *vestitus* Bezzi, but differing in having the fourth abdominal segment much more extensively shining, less pollinose thorax, etc. Black, the legs partly reddish yellow. Length, 8 mm.

MALE.—Face and frontal triangle densely yellowish cinereous pollinose, the occiput with whitish pollen. Vertical triangle large, black, thinly yellowish-brown pollinose, ocellar triangle twice as long as wide, situated a little in front of the middle of the vertical triangle. Pile whitish, yellow on the upper part of the occiput and in front of the anterior ocellus, black on most of the vertical triangle. Antennae black; third segment a little longer than wide, its sides subparallel, its apex oblique.

Thorax black, the sides of the mesonotum bronzed, the pile brassy yellow. Pollen cinereous yellow, very thin on the dorsum, where it is limited to the sides and anterior margin, leaving a pair of approximated black vittae in the middle in front.

No pollinose vittae. Scutellum with the thinned margin very weakly serrate and densely grayish-yellow pollinose.

Legs black; tips of the femora, broad bases of the tibiae, the apices of the anterior four, and their tarsi dark reddish yellow. Posterior femora and tibiae moderately swollen; basal segment of the posterior tarsus with a high ridge, deeply excavated posteriorly along almost the whole length, in front gently concave along most of the length, the ridge with thick, short black hair on its crest. Posterior tarsi brownish red in color and with black hair above. Pile pale yellowish.

Wings cinereous hyaline; stigma brown. Squamae and halteres yellow.

Abdomen slightly shining black, with three pairs of cinereous-yellow pollinose lunules, the third poorly distinguished from the adjacent pollen. The first pair of spots are almost straight and extend from the anterior margin, close to the middle, to the posterior corners. Second pair of spots gently lunulate and extending from the anterior fifth to the posterior corners. The spots on the fourth segment are concave in front, only slightly more dense than the pollen behind, which connects them with the posterior border of the segment, leaving a median, shining stripe: the base of the segment bears a very broad, incomplete shining fascia that is connected sublaterally with a large shining area occupying the posterior corners of the segment. The sides of the second segment are broadly pollinose and there is a large, basal triangle of pollen on each side of the fourth; on the second there is a weak stripe of pollen extending forward from the lunules inside the lateral margins. All the pollen is coarsely punctate and more especially that on the fourth segment. Pile dull brassy yellowish, black on the shining parts of the third segment and in the middle and on the base of the fourth. Genitalia shining black and black-haired. Venter with pale pile.

HOLOTYPE.—Male, Ezbet el Nakhe, Egypt, March 20, 1924 (H. C. Efflatoun).

C. vestitus Bezzi was described from Portuguese Guinea, and while the present species agrees with the description in many respects there are several differences that indicate that the two are quite distinct.

Citabaena obliqua Fabricius

Milesia obliqua FABRICIUS, 1805, 'Syst. Antl.,' p. 194.

Male and female, Boma, Congo, June 9, 1915; male, Mt. Ruwenzori, Congo, June 5, 1914; female, Lubutu, Congo, February 6, 1915; male, Du River, Camp No. 3, Liberia (Jos. Bequaert); male, Salisbury, S. Rhodesia, January, 1901 (F. L. Snow); male, Lourenço Marques, January–March, 1914 (H. A. Junod); male, Botshabelo, near Middleburg, Transvaal, 4000 ft. (H. A. Junod); two females, Basutoland; male, Salisbury, Southern Rhodesia, December, 1931.

Citabaena intiger Bezzi

Eumerus integer BEZZI, 1921, Broteria, ser. zool., XIX, p. 16.

Female, Mt. Ruwenzori, Congo, April 21, 1914 (J. Bequaert).

Citabaena feae Bezzi

Eumerus feae Bezzi, 1912, Ann. Mus. Genova, XLV, p. 440.

Male, Lesse, Congo, July 21, 1914; male, Lisala, Congo, October, 1924; male and female, Banga, Liberia, October, 1926; three males and two females, Du River, Camp No. 3, Liberia (J. Bequaert); female, Lukolela, Congo, December 16, 1930 (J. P. Chapin).

Citabaena paulae Hervé-Bazin

Eumerus paulae Hervé-Bazin, 1913, Rev. Zool. Afr., III, p. 79.

Two males and one female, Lourenço Marques, April–July, 1914, and one male, Botshabelo, near Middleburg, Transvaal, 4000 ft. (H. A. Junod).

Graptomyza Wiedemann

This genus contains a rather small number of species occurring in tropical regions of the Old World. The African species are separable as follows.

Table of Species

1.—Abdomen wholly bluish ..... *sauvissima* Karsch.
Abdomen black, with yellowish markings ..... 2.
2.—Face with a median black vitta ..... 4.
Face wholly yellow ..... 3.
3.—Face, from frontal view, almost twice as wide as either eye ..... *signata* Walker.
Face narrower than either eye ..... *mitis* Curran and Bryant.
4.—Legs yellow, the posterior femora broadly reddish apically ... *xanthopoda* Bezzi.
Posterior femora and tibiae more than one-third black ..... 5.
5.—Face, from frontal view, scarcely over two-thirds as wide as either eye ..... 6.
Face as wide or wider than either eye ..... 7.
6.—Scutellum not one-third as long as wide ..... *breviscutum* Curran.
Scutellum two-thirds as long as wide ..... *triangulifera* Bigot.
7.—Thorax and apical half of abdomen golden pilose ..... *aurea* Bezzi.
Pile pale yellowish or cinereous ..... 8.
8.—All the femora largely black ..... *nigra* Bezzi.
Anterior four femora wholly yellow (*varia* Walker?) ..... *vittigera* Bigot.

Graptomyza breviscutum Curran

Curran, 1929, Amer. Mus. Novit., No. 340, p. 7.

The type was taken at Lesse, Congo, by Dr. J. Bequaert on flowers of *Bidens pilosa*.

Graptomyza triangulifera Bigot

Ptilostylomyia triangulifera Bigot, 1882, Bull. Soc. Ent. France, p. cxiv; 1884, Ann. Soc. Ent. France, p. 322.

CURRAN, 1927, Bull. Amer. Mus. Nat. Hist., LXVII, p. 49.

Female, Lesse, Congo, July 21, 1914, at flowers of *Bidens pilosa;* female, Lubutu, Congo, February 6, 1915; female, Kakatown, Liberia, August 18, 1926 (J. Bequaert); male, Lukulela, Congo, January 13, 1931 (J. P. Chapin).